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Mark Scheme (Results)
Summer 2010

GCE

GCE Music Technology (6MT02) Paper 01

Listening and Analysing

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

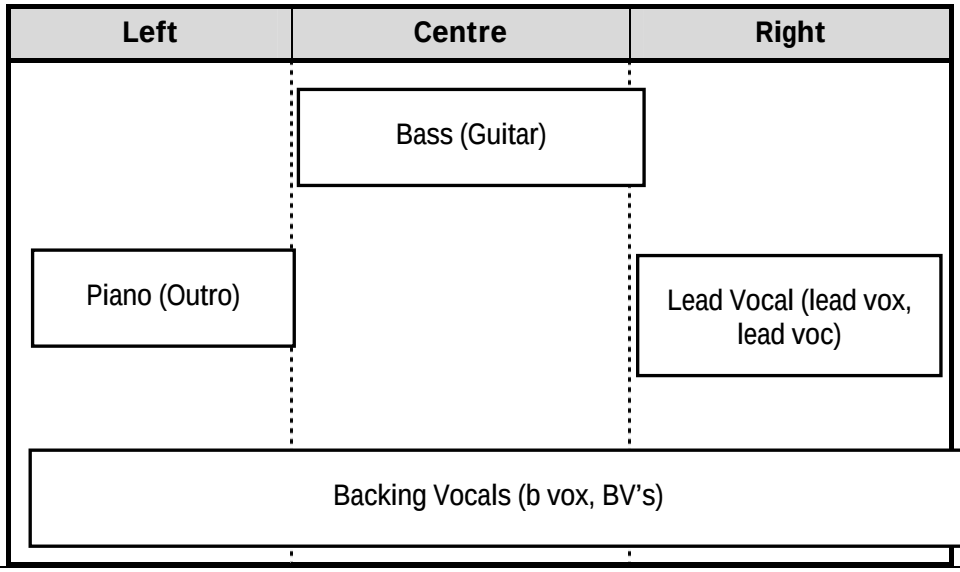
Section A
The Kinks: *Waterloo Sunset*
Track 1: music begins at 0'44"

Question Number	Question	Mark
1(a)	Is this song in a major or minor key?	**1**
	Acceptable Answers	
	Major	

Question Number	Question	Mark
1(b)	In which decade was this track **originally recorded**?	**1**
	Acceptable Answers	
	1960's	

Question Number	Question	Mark
1(c)	Which of the following best describes the shape of the main guitar melody starting at **0'52"**? Put a cross in the correct box.	**1**
	Acceptable Answers	
	B Descending sequence	

Question Number	Question	Mark
1(d)	What technique has been used to record the lead vocal on the phrase 'but I don't need no friends' at **1'19"**? Put a cross in the correct box.	**1**
	Acceptable Answers	
	D Double tracking	

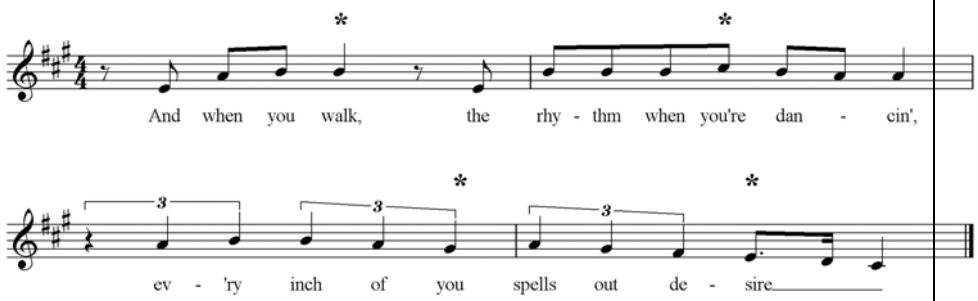
Question Number	Question	Mark
1(e)	This track features creative use of panning. Indicate where the following instruments are placed in the stereo field using the diagram below.	**4**
	Acceptable Answers	
	Bass Guitar Lead Vocal Backing Vocals Piano (Outro)  	

Question Number	Question	Mark
1(f)	On which **two** tracks is delay used?	**2**
	Acceptable Answers	
	• Lead Guitar • Vocals (at the end)	

Kylie Minogue: *Wow*
Track 2: music begins at 0'06"

Question Number	Question	Mark
2(a) *QWC	The piano sound in the intro is quite distinctive. How has dynamic processing been used to achieve this?	**2**
	Acceptable Answers	
	Compressed (1) heavily (1) with low threshold (1) high ratio (1) slow attack (1) fast release (1) pumping (1) limited (1) gated (1)	

Question Number	Question	Mark
2(b) *QWC	Describe the filtering of the instrumental tracks between 0'22" and 0'37".	**2**
	Acceptable Answers	
	• Low Pass Filter / LPF (1) • Rising cut-off **frequency** (accept high-cut if **filtering** is specifically mentioned but **not** treble removed) (1) Sweeps from low to high (1) Gradually adds higher frequencies (1) One mark **only** awarded from each bullet point.	

Question Number	Question	Mark
2(c)	Complete the **four** missing pitches from the chorus vocal line (starting at 0'52"). Each missing pitch is indicated by an asterisk ***** above the stave.	**2**
	Acceptable Answers	
	 ½ mark per correct pitch, rounded up to the nearest mark. NB rhythm not required.	

Question Number	Question	Mark
2(d) *QWC	This recording makes extensive use of sampling. Briefly describe what is meant by 'sampling'.	**2**
	Acceptable Answers	
	Any two of: • Digital recording (storage) of a sound which is • Either taken from pre-existing material/ or • Newly recorded • 'Samples' of the sound are taken at various time intervals • Allows for manipulations/ editing such as • Synthesis/ Filtering / time stretch / pitch shift / looping etc. • Can be triggered (by MIDI keyboard / sequencer etc.) or • Placed / inserted within a timeline	

Question Number	Question	Mark
2(e)	Name **two** effects that are used on Kylie's vocal between **2'10"** and **2'27"**.	**2**
	Acceptable Answers	
	(Stereo/timed) delay / ADT / Gating / sample stuttering / vibrato / LFO / compression / reverb (NOT chorus, phase or flange)	

Elton John: *Better Off Dead*
Track 3: music begins at 0'05"

<table>
<tr><th>Question Number</th><th>Question</th><th>Mark</th></tr>
<tr><td>3(a)</td><td>You have been asked to make a sequenced version of this song. Describe two sequencing/production techniques you might consider in recreating the piano in the opening bars of the intro and a reason why you would use each of them. An example has been given.

Acceptable Answers

<table>
<tr><th>Sequencing/Production Techniques</th><th>Reason</th></tr>
<tr><td>Panning</td><td>To separate the pianos L and R</td></tr>
<tr><td>Quantise</td><td>Use either a very small value or none at all as the playing is quite 'loose'</td></tr>
<tr><td>Velocity</td><td>The playing is heavily accented / varied velocities</td></tr>
<tr><td>Reverb</td><td>The piano sounds are quite wet / the grand piano has a larger amount of reverb</td></tr>
<tr><td>Note on values / Note off values</td><td>The two pianos are not perfectly in time with each other / the note lengths need to be correct</td></tr>
<tr><td>Delay</td><td>A single piano could be delayed slightly and panned L and R</td></tr>
<tr><td colspan="2">NB: marks can only be awarded in the RH box if LH box is correct and if the reason relates to the technique.</td></tr>
</table>
</td><td>4</td></tr>
</table>

Question Number	Question	Mark
3(b)	The sound of the snare drum on this track is quite distinctive. Describe **three** ways in which this sound has been achieved using recording technology. Acceptable Answers • compressed (1) heavily (1) • has **slap back** echo / **short** delay which is (1) • slightly louder than the original signal and also (1) • wet and dry signals are panned extreme left and right (1) • unusually high in the mix (1)	**3**

Question Number	Question	Mark
3(c)	The 8-bar chorus (1'14" to 1'32") is mostly in 12/8 time with only one bar in a different time signature. What is that time signature? Put a cross in the correct box.	**1**
	Acceptable Answers	
	9 **8**	

Question Number	Question	Mark
3(d)	The vocals in the second half of the track (1'39" to 2'09") are performed in the style of a band famous for its vocal arrangements. What is the name of that band? Put a cross in the correct box.	**1**
	Acceptable Answers	
	B The Beach Boys	

Question Number	Question	Mark
3(e)	At the end of the song (from 2'31'' onwards), the phrase 'Better off dead' is repeated. What is the musical interval between the lead and backing vocals?	**1**
	Acceptable Answers	
	3rds / thirds	

Rickie Lee Jones: *Woody and Dutch on the Slow Train to Peking*
Track 4: music begins at 0'09"

Question Number	Question	Mark
4(a) ***QWC**	This song has a strong jazz influence. What elements of the **arrangement** and/or **performance** demonstrate this?	**3**
	Acceptable Answers	
	• Improvisation • Bent / 'Blue' notes • Scat singing • Walking bass • Swung rhythms	

	• Brushed kit • Harmonic extensions / examples thereof e.g. Maj7th etc. (not 'Jazz harmonies') • Use of horn section (not Brass) • Ad lib vox in background	
Question Number	Question	Mark
4(b)	Identify the performance techniques used by the bass guitarist and the drummer.	**2**
	Acceptable Answers	
	Bass Guitarist - Slap Drummer - Brushes	

Question Number	Question	Mark
4(c)	Acoustic guitars are prominent on this recording. How would you use a single mic to achieve a well-balanced acoustic guitar sound for a pop recording? Refer to **type**, **direction** and **distance** of mic in your answer.	**3**
	Acceptable Answers	

Type of mic	Condenser (accept appropriate product names)
Direction of mic	Pointing where the neck meets the body of the guitar / 12th fret
Distance of mic	6 to 24 inches / 15 to 60 cm

Question Number	Question	Mark
4(d)	This recording recreates the feel of an intimate live performance in a small club. How has this been achieved? You should refer to **technology** and/or **performance** in your answer.	**2**
	Acceptable Answers	
	• Room /ambience reverb • Ambient recording • Performances feel quite spontaneous • Interactions between 'performer' and 'audience' such as whooping, shouting, talking, applause etc. • Sound effects such as clinking of glasses • Subtle use of FX and dynamic processing throughout • Backline has live recorded feel	

Total for Section A: 40 Marks

Section B
Special Focus Style: Reggae
Bob Marley and The Wailers: *Stir It Up*
Track 5: music begins at 0'07"

Question Number	Question	Mark
5(a)	The production of the lead vocal includes reverb and compression. Identify **two other** features of the lead vocal mix.	**2**
	Acceptable Answers	
	• Sits back in the mix / doesn't dominate the mix • Mixed at equal level to backing vocals and • Occasionally dips below BV's • Use of (short) delay • Panned extreme left and right	

Question Number	Question	Mark
5(b)	What FX **other than reverb** does the lead guitarist use between **3'07"** and **3'21"**?	**2**
	Acceptable Answers	
	• Distortion/overdrive • Wah wah	

Question Number	Question	Mark
5(c)	The two rhythm guitars (right and left) use two different techniques. What are they? Choosing **one** from **each** list, put a cross in the **two** correct boxes.	**2**
	Acceptable Answers	
	Left Guitar - Left Hand Damping Right Guitar - Palm Muting	

Question Number	Question	Mark
5(d)	Name **one** of the electronic keyboard instruments used in this arrangement.	**1**
	Acceptable Answers	
	Synthesiser (synth) / Clavinet / organ	

Question Number	Question	Mark
5(e) *QWC	Describe **five** elements of reggae music that you can hear in this track. You should refer to the **rhythm**, **harmony**, **performance** and/or **production** in your answer.	**5**
	Acceptable Answers	
	• Offbeat rhythms / Syncopation • Skanking • Repetitive / simple bass line, guitar, drum parts • Repetitive / simple harmony • Prominent bass line / high in mix • Boosted LF on bass • Use of heavy / plate /spring reverb • Gospel-tinged backing vocals • I, IV and V chords • Staccato/chop guitars • Use of panning to create interest • Jamaican accent on vocals • Laid back quality / slow tempo • Kick drum/ sidestick snare on beats 2 and 4 (accept beat 3) • Rimshot rolls • Organ shuffle • Piano chops on offbeats (similar to guitar) • One drop rhythm	

Question Number	Question	Mark
5(f) *QWC	Describe the ways in which technology is used in the production of 'dub' reggae.	**3**
	Acceptable Answers	
	• Dramatic use of effects • Big reverb splashes (particularly on snare) • Use of phasers and flanging • Often mixes out vocal tracks or • Leaves isolated phrases of vocal tracks • Use of delay on sections of instrumental tracks • Fading in and out • Abrupt opening / shutting of instrumental tracks • Use of extreme panning • Use of shifting panning • Emphasis on drum and bass tracks	

Question Number	Question	Mark
5(g) *QWC	Outline the development of reggae music from the 60s to the present day. Support your answer with reference to important artists and styles, explaining their significance.	**5**
	Acceptable Answers	
	Development and popularity • Started in Jamaica • Influenced by African / Caribbean (folk)/ Mento / US R'n'B/ Jazz/ European folk which • developed into Ska (fairly fast with offbeats – enjoyed a revival in late 70's in the UK) and • Rocksteady (a slower style, named after the song by Alton Ellis) in 1960's • Slowed down further, becoming reggae with • lyrics relating to Rastafarianism or social issues (poverty, black rights etc.) • Reggae popularised by the film *The Harder They Come* (1972) and • Eric Clapton's cover of *I Shot The Sheriff* (1974) brought it to global attention • *Island* label important in popularising reggae outside Jamaica in early 70's • Popularisation of Dub in early 70's/sound systems/MC's/Toasting • Sound systems and studios owned by same people/ used to promote music due to lack of radio play • Ska picked up in UK in mid / late seventies as the *2-tone* sound which continued into the 80's • Also Lover's rock, a more romantic, R'n'B-tinged style popular in UK • Dancehall / Ragga emerged in 80's as crossover with an almost rap style • Rise of reggaeton (combination of latin music and reggae) in the early 90's **Important Artists** Credit any credible <u>important</u> artist including the following: • Bob Marley (and the Wailers) • Prince Buster • Toots and the Maytals • Jimmy Cliff • Skatalites • Burning Spear • Peter Tosh • The Abyssinians • Desmond Dekker • Alton Ellis • Dennis Brown	

	• Shabba Ranks • Shaggy • UB40 • Aswad • Gregory Isaacs • Dub syndicate • Madness / Specials **Important Styles** Credit any credible <u>important</u> style which may include the following: • Roots Reggae (started in early 70's) • Rub-a-dub • One drop • Steppers • Ska • Rocksteady • Dancehall (80's) • Ragga • Lover's rock (late 70's – 80's) • 2-tone • Dub • Reggaeton **NB** there must be at least one reference to an artist and one reference to a style. Marks to be awarded; Max 3 for Development, Max 1 for Artist, Max 1 for Style.	

Special Focus Style: Heavy Rock
Audioslave: *The Worm*
Track 6: music begins at 0'06"

Question Number	Question	Mark
6(a)	Describe the structure of this track by filling in the blank boxes.	**4**
	Acceptable Answers	

Section No.	Description
0'06"	Intro
0' 33"	Verse
1' 08"	Chorus
1' 22"	**Verse**
1' 56"	**Chorus**
2' 11"	**(Instrumental) link/reprise of intro**
2' 24"	**(Instrumental) solo/guitar solo/lead break**
2' 51"	Middle 8/Breakdown
3' 18"	Pre-Chorus/Link (reprise of intro)
3' 32"	Chorus

Question Number	Question	Mark
6(b) *QWC	Assuming that there was no double tracking of the solo guitar at **2'37"**, suggest **two** other ways in which this sound might have been achieved.	**2**
	Acceptable Answers	
	Pitch shifter / harmoniser / Octave pedal / Pan signals L and R / whammy pedal	

Question Number	Question	Mark
6(c)	What effect, other than reverb and distortion, is used on the rhythm guitar track at **0'38''**? Put a cross in the correct box.	**1**
	Acceptable Answers	

	A Flange	

Question Number	Question	Mark
6(d)	At **1'22''**, what evidence is there to suggest that the lead vocal has been overdubbed?	**1**
	Acceptable Answers	
	the vocal tracks overlap / two voices heard	

Question Number	**Question**	Mark
6(e) *QWC	Highlight **four** features of this track that are typical of heavy rock. You should refer to **melody**, **harmony**, **rhythm**, and/or **performance** in your answer.	**4**
	Acceptable Answers	
	• Simple melodic shapes • Based on pentatonic scale • Minor harmony • Use of riffs and • Power chords • Slow, sinister tempo • Staccato quavers in guitar • Guitar solo (virtuosic / mention of specific techniques) • Hard-hitting drum style • Rough edge to vocals / Screaming vocals (accept shouting) • Distorted guitar • Guitars and bass in octaves • Guitars and bass in rhythmic unison • Emphasis on beats 1 and 3 • Rhythmically complex drum fills • Changing time signatures • Semi-open hi hat	
Question Number	Question	Mark
6(f)	Name **two** methods of recording an electric guitar.	**2**
	Acceptable Answers	
	• Close mic on the amplifier • DI (box) / direct inject(ion) / direct input	

Question Number	Question	Mark
6(g)	Choose **two** artists from the list below and describe their contribution to heavy rock. • **Jimi Hendrix** • **Van Halen** • **Heart**	**6**
	Acceptable Answers	
	Jimi Hendrix • Focus on guitar technique, fast solos, extreme bends, unusual techniques • Use of guitar FX inc wah wah, distortion and • creative use of feedback • Extended blues and R'n'B styles • Introduced elements of psychedelia into heavy rock • Used the studio as an expressive and creative tool • Particularly on *Electric Ladyland* • Despite making only 3 studio albums in his lifetime, he was immensely stylistically influential on many guitarists and songwriters. (3) **Van Halen** • Distinctive and much copied guitar techniques inc. • two-handed tapping, hammer-ons and pull-offs, dive-bombing, pinch harmonics to create • Technically complex solos • Huge sales during the late 70's and particularly in the early 80's (both albums and singles) • The album *1984* saw the introduction of synthesisers (e.g. *Jump*) which gave them • a more commercial pop sound • The mid to late 80's saw songs of greater length and complexity (3) **Heart** • Unusual for being female rockers • Helped to pave way for future women in rock • Huge success with debut *Dreamboat Annie* • Folk influences evident and • combined with heavy rock and pop sensibilities • most popular in late 70's and early 80's (3) Credit appropriate reference to works. Total of 3 marks per artist (i.e. 6 marks available). If all 3 artists have been attempted, mark all and take best 2 marks.	

Total for Section B: 40 Marks
Total for Paper: 80 Marks

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